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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Hee-Jun Kim

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EXAMINER

GURSHMAN, GRIGORY

ART UNIT

PAPER NUMBER

2132

DATE MAILED: 11/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/964,239

Applicant(s)

KIM, HEE-JUN

Examiner

Grigory Gurshman

Art Unit

2132

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 August 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 August 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Rejections of claims 6 and 7 under 35 USC § 112 have been overcome by Applicant's amendment of the instant claims.
2. Applicant amendment of the independent claim 1 consists of incorporating the limitations from claim 2 (now canceled) into claim 1. These limitations are addressed in the rejections herein.
3. Applicant argues that the limitations of claim 2 now included into claim 1 are not taught in Mizuno. Examiner respectfully disagrees and points out that referring to claim 2, Mizuno teaches the use of shift registers and modulation circuit (see 21, 22 and 10 in Fig. 4). The use of random number for the generation of the session key is met by Fig. 1 (units 2 and 3).
4. In view of the reasons presented herein the rejections of claims 1, 3-7 are maintained.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 3-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Mizuno (U.S. Patent No. 5,886,421).

7. Referring to the instant claims, Mizuno discloses vehicle start-up permission device and identification code registration method (see abstract and Fig. 1).

Mizuno teaches a vehicle start-up permission device in which an identification code stored in an electronic key can be kept secret. A start-up permission ECU (1) is magnetically coupled with a transmit-receive controlling circuit (6) of an electronic key (3) via an antenna (2) and an antenna (5) of the electronic key (3) with the electronic key (3) being inserted in an ignition key (4) so as to supply electric power for the circuit. When the ignition switch (4) is operated to an ACC position, the start-up permission ECU (1) transmits a random number code. When the transmit-receive controlling circuit (6) of the electronic key (3) receives the random number code, it converts by predetermined encryption processing a previously registered key code to a return code on the basis of the random number code and returns the return code. When the start-up permission ECU (1) receives the return code, it decodes a key code on the basis of the random number code, and when the key code coincides with the previously registered key code, the start-up permission ECU (1) outputs a start-up permission signal to an engine-controlling ECU (7) - see abstract and Figs. 1 and 4.

8. Referring to claim 1, the limitation "the ECU receiving the key ID from the ignition key and determining if the key ID is a registered ID" is met ECU (7) and comparison of the key code with registered key codes (unit 1) in Fig. 4. The limitation "generating... a random number, and transmitting the random number and the encoded lock password to a transponder of the ignition key" is met by Fig. 1 (units 2 and 3). The limitation

“transponder encoding a key password using the stored key password” is met unit 2 (Fig. 4). The limitation “decoding the encoded key password...” is met by block 3 (in Fig. 4). The limitation “releasing an ignition lock state if the decoded key password is identical to the stored key password” is met by Fig. 2 (see start-up permission signal).

9. Referring to claim 2, Mizuno teaches the use of shift registers and modulation circuit (see 21, 22 and 10 in Fig. 4). The use of random number for the generation of the session key is met by Fig. 1 (units 2 and 3).

10. Referring to claims 3-5, Mizuno teaches the use of a plurality of functions receiving a plurality of bit values (see Fig. 4), R_n , P and Q).

11. Referring to claim 6, Mizuno shows that start up permission ECU has shift registers (21 and 22 in Fig. 2).

12. Referring to claim 7, the F_4 function recited in the claim 7 is met by function $Q = F(R_n, K_1, S_1)$ – see Fig. 4

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Grigory Gurshman whose telephone number is (571)272-3803. The examiner can normally be reached on 9 AM-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on (571)272-3799. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300

Art Unit: 2132

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Examiner
Art Unit 2132

Gilberto S. Jr.

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